





*Thirty-second Annual Report of the Savilian
Professor of Astronomy to the Visitors of
the University Observatory for 1906-7.*

BOARD OF VISITORS, 1907.

THE VICE-CHANCELLOR (Thomas Herbert Warren, M.A., President of Magdalen).

THE SENIOR PROCTOR (Rev. George Chatterton Richards, M.A., Fellow and Tutor of Oriel).

THE JUNIOR PROCTOR (Rev. Willoughby Charles Allen, M.A., Fellow and Lecturer of Exeter).

THE ASTRONOMER ROYAL (Sir W. H. M. Christie, K.C.B., M.A., Hon. D.Sc., F.R.S.).

THE DIRECTOR OF THE CAMBRIDGE OBSERVATORY (Sir R. S. Ball, M.A., LL.D., F.R.S.).

THE RADCLIFFE OBSERVER (A. A. Rambaut, M.A., D.Sc., F.R.S.).

WILLIAM ESSON, M.A., F.R.S., Fellow of New College.

SIR WILLIAM HUGGINS, K.C.B., O.M., Hon. D.C.L., F.R.S. } For ten years until Dec. 11, 1910.

EDWIN B. ELLIOTT, M.A., F.R.S., Fellow of Magdalen. }

CHARLES LEUDESORF, M.A., Fellow of Pembroke. } For ten years until Nov. 10, 1915.

THE REPORT here presented refers to the period from May 1, 1906, to April 30, 1907, and exhibits the state of the Observatory on the last-named day.

I. Buildings and Grounds.

The proposal for a residence at the Observatory was rejected on March 12, but the opposition offered took the form of raising other questions for prior consideration, so that the decision on the main question was deferred.

Petty annoyances to the Observatory tend to increase, owing to the relaxation in control of the persons admitted to the Parks. The work of the Observatory is often seriously inconvenienced by the noise from the unruly children who are allowed to assemble on the lawn-tennis courts near the Observatory. There are several reasons why they would be better elsewhere.

II. Library and Movable Property.

The Library continues to be enriched by valuable presents from other Observatories, especially those engaged on the Astrogaphic Chart. The following is a brief statement of the number of charts received :—

	Green- wich	Paris	Algiers	Bor- deaux	Tou- louse	San Fer- nando	Rome
During 1906-7 .	232	47	57	11	30	59	0
Previously . . .	376	224	204	39	106	46	3
Total . . .	608	271	261	50	136	105	3

In addition two quarter-volumes of measures have been received during the year, making a total of $10\frac{1}{2}$ volumes. We are now fortunately in a position to make some return for these valuable gifts.

Mr. T. Colby has again presented several old books to the Library.

About 70 new lantern slides have been made or acquired during the year. Mullis has made a revolving drum for the exhibition of photographs, and is at work on a series of frames for storing lantern slides in a manner which will render them easy of inspection.

A new réseau (No. VII) was purchased from M. Gautier in June, and at once brought into use.

III. Instruments.

The instruments call for no special remark as to their condition.

One of the micrometers is on loan to Mr. S. A. Saunder for the measurement of lunar photographs; another is lent to Mr. T. J. Moore, of Hatfield, near Doncaster, who is measuring revision plates for us. A wooden model micrometer has been lent to King's College, London, in order that Prof. J. B. Dale may make experiments on the suitability of such work as the measurement of photographs for his students, and a number of plates are also lent to him (Nos. 1984, 1986, 1988, 2042, 2077, 2207, 2322).

The 15-inch With mirror and mounting is still lent to Mr. Astbury of Wallingford.

The wedge photometers, lent to Mr. A. W. Roberts, of Lovedale, South Africa, were returned by him last March.

IV. Observations and Reductions.

The reading of proofs, with the consequent examination of discrepancies, and the preparation of fresh copy to send to the printers, with as much remeasurement of the less satisfactory plates as we can manage, will continue to absorb most of our energies during the next few years: and at present it is not possible to undertake any other serious piece of work. As an instance of the amount of labour involved, it may be mentioned that during the year 1906 Mr. Bellamy, Mr. Plummer, and myself, each checked about a million figures in direct proof-reading alone, irrespective of much other work.

V. Printing and Publication of Results.

Volume I (Zone + 31°) and II (Zone + 30°) are printed and bound, and the greater part of Volume III (Zone + 29°) is printed; so that the rate of one volume in six months has been maintained so far.

Of each volume 200 copies are bound in cloth, and the rest in paper. Of the paper copies, 100 of each volume are at present, by the courtesy of Bodley's Librarian, deposited in the Savilian Library, as a safeguard against loss of the whole impression by fire. The distribution of the volumes

is proceeding as expeditiously as can be managed with our small staff.

The following papers have been published by members of the staff during the year :—

“Total Solar Eclipses” (Wilde Lecture). By H. H. Turner, *Mem. & Proc. Manchester Lit. & Phil. Soc.*, Vol. L, No. 7.

“On some Points connected with the Determination of Orbits.” By H. C. Plummer, *Mon. Not.*, Vol. LXVI, p. 491 (June, 1906).

“On the Effects of Radiation on the Motion of Comets” (second Note). By H. C. Plummer, *Mon. Not.*, LXVII, p. 63 (Nov., 1906).

“Note on the mechanical solution of Kepler’s equation.” By H. C. Plummer, *Mon. Not.*, LXVII, p. 67 (Nov., 1906).

“On the Possibility of Improving the Places of the Reference Stars for the Astrographic Catalogue from the Photographic Measures.” By H. H. Turner, *Mon. Not.*, LXVII, p. 108 (Jan., 1907).

“Pogson’s Observations of U. *Geminorum*.” Edited by H. H. Turner, *Mon. Not.*, LXVII, p. 119 (Jan., 1907).

“Baxendell’s Observations of U. *Geminorum*.” Edited by H. H. Turner, *Mon. Not.*, LXVII, p. 316 (March, 1907).

“On the Classification of Long-period Variable Stars, and a possible physical interpretation.” By H. H. Turner, *Mon. Not.*, LXVII, p. 332 (March, 1907).

VI. Lectures, &c.

The course of Lectures by the Professor on the Astronomy required for the Mathematical Final Schools was delivered in the Michaelmas and Hilary Terms as usual, and practical instruction has been given by Mr. Plummer as in former years.

The appointment of Dr. H. N. Dickson at Reading has terminated the arrangement by which he had the use of the lecture-room for lectures on Military Topography.

VII. Personal Establishment.

There have been no changes in the permanent staff during the year, nor in their devotion to the work of the Observatory. Mr. Bellamy carried on his proof-reading even through a severe attack of neuritis. The response of the Common University Fund to the appeal made on behalf of Mr. H. C. Plummer last year, which was cordially supported by the Board, calls for our grateful acknowledgements: in consequence of their grant of £150 for five years, the salary of Mr. Plummer has been raised to £200 a year from January 1, 1907. The Board will have an opportunity of admiring some instances of Mr. Mullis's handiwork, which is as skilful as ever.

Miss E. F. Bellamy has during a large part of the year been prevented by illness from working as usual; but has recently been able to resume her occasional assistance. We have been fortunate in re-enlisting the services of Mr. T. J. Moore (of Hatfield, near Doncaster), in measuring plates of which new measures seemed advisable on revision. There are obvious advantages in having this help from one who took a large part in the work throughout. Experience has shown that there is so much to be gained by remeasurement and examination of exceptional cases, that the number of computers at the Observatory has been raised from one to three, and it is hoped that the Government Grant Committee of the Royal Society will be able to subsidize this supernumerary staff until the printing is completed. At present Mr. A. C. T. Roberts, Mr. O. J. B. Cole (son of the Chief Constable of the City), and Mr. S. C. Cook are working to good purpose in this capacity.

H. H. TURNER.

April 30, 1907.

